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HIGHLIGHTS

California and Florida accounted for 77 percent of the value of 1970 U.S. gladiolus production (mostly in Florida), and 46 percent of the total value of carnations and standard chrysanthemums (nearly all in California). Together, the two States also produced about 57 percent of the total market value of pompon chrysanthemums and 27 percent of the potted mums. California alone produced nearly 27 percent of the total value of roses sold in 1970.

Shipment of these floral crops to out-of-State markets was handled by approximately 140 firms. Eighty-three firms shipped from California, 58 from Florida. Approximately 70 percent of the shippers in the two States were growers, 28 percent were wholesalers, and 2 percent were grower cooperatives or pools. Data on 50 firms are included in this study.

Most were medium-sized shippers, with gross sales of the six specified flowers of \$100,000 to \$500,000. However, 12 percent of the growers interviewed and 22 percent of the wholesalers exceeded \$1 million in sales. The smaller shippers, both growers and wholesalers, are concentrated in California.

The number and importance of small growers and of wholesalers in the shipping point markets are decreasing. Brokers of floral crops have virtually disappeared, although several Florida growers act as brokers in obtaining supplies of floral products needed by their regular customers during the nonproduction season in Florida.

Integration by growers has extended forward along the marketing chain to include distribution to retail establishments in the distant consumption areas. More than 25 percent of the growers interviewed made out-of-State shipments to retail florists in 1970, and sales to grocery chains are increasing in importance.

Backward integration also has occurred, but to a lesser extent. Wholesale florists in certain areas have begun growing operations, and retail florists have assumed wholesaling functions through sales to other retailers.

Very little product differentiation is possible in marketing the six specified floral crops. Most shippers stress consistent quality of product as the most important competitive factor and many identify shipments with a brand or firm name to build a reputation for their product. Many larger volume shippers offer special packing services for customers. Consumer packaging of carnations and other flowers is the most important customer service offered by California shippers; in Florida, it is special packing of various sizes of shipping containers for customers who

either require odd-lot shipments or wish to reship small quantities to their own customers without repacking.

Several Florida shippers utilize sales representatives in contacting retail florists. There are few barriers to entry of new firms in either growing or wholesaling of floral crops, although capital requirements are constantly increasing.

The most important markets for out-of-State shipments from each of the shipping points studied are the highly populated North Central and Northeastern regions. Florida shippers also make a large proportion of shipments to the Southern States, and the California firms make important sales in the Mountain and West South Central regions.

Most shipments made by California and Florida shippers move as sales to wholesalers in larger cities. Direct sales to retail florists are second in importance to these shippers, and consignments to wholesalers are third. California shippers make relatively fewer consignments in out-of-State markets than do Florida firms because California growers can consign to wholesale markets within the State.

Air freight is the most important mode of transportation for shipments of flowers from California, except for potted chrysanthemums. Truck transportation remains most important in Florida because of the specialized trucking services developed there for floral products and the proximity of the area to large urban markets. Because of their bulk and weight, most potted chrysanthemums move by truck.

Price differences between areas were apparent. The California firms generally received the lower prices except for gladioli, for which the lower prices were received by Florida shippers. The prices estimated were those for all flower sales of respondents, not just out-of-State shipments.

Most shippers believe there are no differences in prices among the out-of-State markets to which they ship, although approximately 25 percent believe that larger wholesale flower markets offer consistently lower prices than those received in sales to wholesalers and retail florists in smaller cities and towns.

At least a limited number of respondents in California and Florida expect increased production of poinsettias because of the improved shipping qualities of new varieties that have been developed.

Some Florida wholesalers import carnations, standard and pompon chrysanthemums, and gladioli from South America and Guatemala, and many growers expect important increases in foreign competition.

Shipping Point Markets for Flowers: Practices and Problems of California and Florida Shippers

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INTRODUCTION

Technological developments in handling, packaging, and transporting cut flowers and flowering plants as well as shifts in the relative importance of flower production areas suggest fundamental changes in the marketing and shipping of these products. This study analyzes changes in the organization, marketing, and shipping practices of shipping point markets for selected cut flowers and flowering plants in the major producing areas of California and Florida. The floral crops selected for study were carnations, gladioli, roses, and standard, pompon and potted chrysanthemums.

Analysis and data collection were limited to firms that perform the shipping function in the indicated shipping point markets. Specific objectives of the study

are the description and evaluation of:

- Market organization, including identification of the types and numbers of firms that perform the shipping function and their sources of supply.
- Marketing and shipping practices used by shippers, including the geographic areas and types of customers to which shipments are made.
- Market performance, considered as the impact of organization and marketing practices upon such variables as prices, volumes, and success of firms.
- Expected trends in demand, production areas, and types of firms.

CHARACTERISTICS OF SHIPPING POINT MARKETS

Location and Value of Production—The production areas in California are the coastal regions around San Francisco and Los Angeles. Florida production extends along both east and west coasts.

California is an important State in sales of each of the six flowers, but carnations and roses are most important. In 1970, carnations grossed California growers \$21.9

million while roses brought \$14.1 million. Standard chrysanthemums rank third, followed by pompons, gladioli, and potted chrysanthemums. Gladioli are the most important Florida floral crop, followed by pompons. Standard and potted chrysanthemums are approximately equal in importance in Florida. Carnations and roses are minor.

Table 1.—Carnations, chrysanthemums, gladioli, and roses: Gross wholesale value of sales, 23 States, California and Florida, 1969-70

Flowers	Gross wholesale value of sales ¹									
	23 States		California				Florida			
	1969	1970	1969	1970	1969	1970	1969	1970	1969	1970
	1,000 dollars	1,000 dollars	1,000 dollars	Percent of total	1,000 dollars	Percent of total	1,000 dollars	Percent of total	1,000 dollars	Percent of total
Carnations	47,696	47,750	20,566	43.1	21,895	45.9	(²)	(²)	(²)	(²)
Chrysanthemums										
Standard	26,813	26,925	9,962	37.2	10,590	39.3	1,888	7.0	1,863	6.9
Pompon	27,195	26,651	6,403	23.5	6,601	24.8	9,977	36.7	8,706	32.7
Potted	21,938	24,598	2,948	13.4	4,124	16.8	1,977	9.0	2,454	10.0
Gladioli	21,343	18,725	3,387	15.9	3,111	16.6	13,129	61.5	11,277	60.2
Roses	53,858	53,967	14,512	26.9	14,113	26.2	372	0.7	284	0.5

¹ Equivalent wholesale value of all sales.

² Unallocated to avoid disclosure of individual operations.

Source: Flowers and Foliage Plants, Production and Sales in Selected States, U. S. Dept. Agr., SRS Stat. Bul. No. 442 and supplement.

Number of Producers—The floral crop produced by the largest numbers of growers in the two States in 1970 was carnations, with 295 growers, all in California (table 2). Pompons and standard mums were second and third in numbers of growers, with 294 and 238 in the combined shipping point areas, respectively. Roses were produced by 66 and potted chrysanthemums by 46 growers; only 45 growers in the two States produced gladioli in 1970.

Between 1966 and 1970, the number of producers in 23 States declined for all crops but roses. Conversely, the number of producers of 5 of the 6 reported flowers increased in California, and producers of chrysanthemums increased in Florida. There were declines in the number of rose and gladioli producers in Florida. These changes attest to the shift of flower production to California and the increased specialization in both areas.

Production Importance of the Two States—A relatively small number of California and Florida growers produce a large proportion of the Nation's major flowers (table 3 and appendix tables 1-3). In 1970, California, with 17 percent of the growers, produced 47 percent of the carnations reported in the 23 major flower-producing States. Florida, with 6 percent of the growers, produced 60 percent of the gladioli in the 23 States. The pattern is comparable for the other reported flowers, although less pronounced for potted chrysanthemums and roses. Growers of these flowers in California and Florida—18 percent of the total number of growers—produced approximately 27 percent of the volume reported for 23 States in 1970.

PROCEDURE

A mail survey, augmented by telephone conversations with knowledgeable industry leaders, extension workers, and others, established a universe of approximately 140 growers and wholesalers in California and Florida who shipped at least \$10,000 worth of flowers out of State. Approximately 60 percent of the California and 90 percent of the Florida respondents were growers.

From this universe, a stratified random sample of growers and wholesalers was drawn. Since the study focused on 6 types of flowers reported by the Statistical Reporting Service, USDA, care was taken to ensure that shippers of carnations, standard chrysanthemums, pompons, potted mums, gladioli, and/or roses were represented.

THE SAMPLE

Personal interviews were conducted with 50 firms that shipped flowers. Twenty-seven firms were in California and 23 in Florida.

Fifty-eight percent of the sample firms were growers, 40 percent were wholesalers, and 2.0 percent were cooperatives. Most firms contacted in Florida were growers; more than half the California respondents were wholesalers. One cooperative was included as a grower to avoid disclosure of individual operations.

The sample included 35 percent of the estimated total number of firms making shipments of the specified flowers valued at \$10,000 or more from the combined

Table 2.—Number of producers, selected floral crops, by States, 1956-70

	Year ¹													
	1956	1957	1958	1959	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Carnations														
23 States										2,183	2,055	1,988	1,861	1,749
California	157	153	180	189	169	174	211	205	188	232	236	263	285	295
Florida	(²)	(²)	(²)	6	4	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Standard mums														
23 States										2,984	2,756	2,599	2,457	2,243
California	158	150	139	153	153	151	189	166	154	171	174	196	191	206
Florida	15	15	12	24	15	18	23	23	20	27	28	32	34	32
Pompons														
23 States										2,988	2,738	2,660	2,497	2,349
California	208	205	214	226	177	171	186	176	148	174	168	218	201	246
Florida	45	44	42	51	45	43	46	43	40	46	46	50	51	48
Potted mums														
23 States										1,545	1,538	1,540	1,455	1,543
California										22	29	33	28	32
Florida										8	10	12	13	14
Gladioli														
23 States										581	541	492	398	366
California	76	68	61	79	50	52	50	37	34	27	24	27	20	22
Florida	72	62	57	53	45	36	29	27	25	28	28	28	26	23
Roses														
23 States										376	376	371	384	383
California	44	41	39	43	42	42	45	43	41	45	50	56	57	60
Florida	(²)	(²)	(²)	11	12	17	16	13	10	10	9	13	8	6

¹No estimates made for 1960 crop year; estimates for 23 States total and for potted mums begun 1966.

²Florida not published to avoid disclosure of individual operations.

Source: Flowers and Foliage Plants, Production and Sales in Selected States, U. S. Dept. Agr., Stat. Bul. No. 442 and supplement.

Table 3.—Number of growers and value of production as a percentage of national total, 6 major flowers, California and Florida, 1970

States	Carnations	Chrysanthemums			Gladioli	Roses
		Standard	Pompon	Potted		
	Percent	Percent	Percent	Percent	Percent	Percent
Value of production						
23 States	100	100	100	100	100	100
California	46	39	25	17	17	26
Florida	(¹)	7	33	10	60	1
Total, 2 States		46	58	27	77	27
	Percent	Percent	Percent	Percent	Percent	Percent
Number of growers						
23 States	100	100	100	100	100	100
California	17	9	10	2	6	16
Florida	(¹)	1	2	1	6	2
Total, 2 States		10	12	3	12	18

¹ Florida carnations not published to avoid disclosure of individual operations.

Source Flowers and Foliage Plants, Production and Sales in Selected States, U. S. Dept. Agr., SRS, Stat. Bul. No. 442 and supplement.

two-State area. Approximately 30 percent of all growers and 52 percent of wholesalers were included. Thirty-three percent of the California and 40 percent of the Florida shippers were included.

Size of Firm Classification—Firms were classified by size, based upon their total annual sales volumes of the six flowers specified for study (including in-State sales). The size categories used were small, medium, large, and very large; the sales ranges indicated by these categories were:

Small	0 - \$99,999
Medium	\$100,000 - \$499,999
Large	\$500,000 - \$999,999
Very large	\$1,000,000 or more.

Most sample firms in each area were of medium size, with total sales of \$100,000 to \$499,999 (table 4). Seventy-nine percent of grower-shippers and 61 percent of wholesalers were of small or medium size. Larger proportions of California than Florida shippers were of small or medium size.

Volumes Shipped by Firms—Physical volumes of the specified flowers shipped to out-of-State markets by sample firms in 1969 are given by area, type of firm, and size of firm in table 5 and appendix tables 4-6. The sample represents shipments of 86.9-million carnations, 13.5-million standard mums, 4.9-million pompons, 0.6-million potted mums, 8.8-million gladioli, and 16.5-million roses.

Other Aspects of Market Organization—Detailed information was collected from selected firms in California and Florida concerning aspects of their business usually associated with market organization, such as age of firm, years under present ownership, and form of business organization. Detailed data on these aspects are in appendix tables 7-10.

Table 4.—Shippers of flowers, included in the survey by size of firm and by State, 1969/70

Size	California	Florida ¹	Total
<i>Number of firms</i>			
Growers			
Small	1	3	4
Medium ...	9	10	19
Large	1	1	2
Very large .	—	5	5
Total ...	11	19	30
Wholesalers ..			
Small	3	—	3
Medium ...	7	2	9
Large	4	—	4
Very large .	2	2	4
Total ...	16	4	20
Total ...	27	23	50

¹ One Florida cooperative included in growers.

Table 5.—Volumes and proportions of specified flowers shipped out of State
by 50 California and Florida firms, 1969/70

Firms	Carn.	Chrysanthemums			Glads	Roses	Carn.	Chrysanthemums			Glads	Roses
		Std.	Pom.	Pot.				Std.	Pom.	Pot.		
	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 dozen	1,000 blooms	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
California												
Growers	14,020	649	306	50	284	5,469	29	7	29	86	48	38
Wholesalers . .	34,818	8,959	746	8	303	8,799	71	93	71	14	52	62
All California	48,838	9,608	1,052	58	587	14,268	100	100	100	100	100	100
Florida												
Growers and co-ops	---	3,485	3,713	519	7,089	440	---	99	98	100	87	34
Wholesalers . .	158	37	79	(1)	1,108	849	100	1	2	(1)	13	66
All Florida . .	158	3,522	3,792	519	8,197	1,289	100	100	100	100	100	100
Total												
Growers and co-ops	14,020	4,134	4,019	569	7,373	5,909	29	31	83	99	84	38
Wholesalers . .	34,976	8,996	825	8	1,411	9,648	71	69	17	1	16	62
All firms	48,996	13,130	4,844	577	8,784	15,557	100	100	100	100	100	100

¹ Less than 0.5 percent.

SUPPLY SOURCES AND ASSEMBLING PRACTICES OF FIRMS

Shippers can be divided into three categories with respect to their sources of supply: Firms that ship only flowers they themselves grow, those that receive their entire supplies from others, and those that both grow their own and receive from others supplies for out-of-State shipment (table 6).

Many firms making out-of-State shipments grow at least a portion of the flowers they ship. Such respondents represent 60 percent of sample firms in California and 83 percent in Florida.

Assembling Flowers for Shipment—Large wholesale floral companies received their entire supplies of flowers from other firms. They usually handled several other types of flowers in addition to the six specified for this study, and those in Florida often sold such related products as artificial flowers and giftware items and served as complete suppliers for retail florists. Four Florida respondents were of this type. California wholesalers, 40 percent of the respondents in that State, usually handled fresh flowers only.

Table 6.—Sources of flowers, shipped by firms in
California and Florida, 1969/70

California and Florida, 1969/70							
Source	Carn.	Chrysanthemums			Glads	Roses	Individual firms
		Std.	Pom.	Pot.			
Number of firms							
California							
Grow only	4	2	3	1	1	3	8
Receive from others: only	11	10	11	2	8	10	11
Both grow and receive	5	4	4		2	3	8
Total	20	16	18	3	11	16	27
Florida							
Grow only		5	11	1	8	1	16
Receive from others only ¹	3	4	5	3	4	3	4
Both grow and receive			1		2		3
Total	3	9	17	4	14	4	23
¹ Cooperative included							

¹ Cooperative included.

These large wholesale firms usually purchased quantities of each type of flower handled, and also frequently received consignments from growers of important local floral crops. Consignments of standard mums, pompons, and gladioli were received by Florida wholesalers.

Shippers included in the sample who both grew flowers and purchased these crops for resale operated differently. They stressed the growing function, and normally did not handle as many types of flowers as did the wholesalers, although they were often as large in terms of volumes sold. However, the organization of such firms varied considerably in the two States.

California respondents who both grew floral crops and acquired them from others usually began by performing the growing function only, developed a marketing organization and expertise, and entered the wholesaling function, purchasing and marketing crops produced by neighboring growers. They purchased only a limited number of crops, usually just the types of flowers they grew themselves. Eight California shippers were of this general type.

Two of the three Florida firms that both grew and acquired flowers from others for resale were wholesaling gladioli to permit continuous service to their customers throughout the year. These growers did not attempt production in Florida during the period July through September. However, each had developed a marketing organization and clientele of customers who demanded a continuous supply. To provide this, these growers obtained supplies of gladioli from other growers in northern Florida, North Carolina, and Illinois during the off-season. One respondent purchased the gladioli from Northern growers but did not take physical possession, preferring to have the suppliers ship directly to his customers. Another respondent moved his harvesting and packing laborers to the Northern States and performed the actual packing and shipping function at the suppliers' locations.

The remaining Florida respondent who both grew and received flowers from others grew gladioli only and purchased pompons from neighboring growers to provide more complete utilization of his packing and marketing facilities.

Portion of Shipments Made by Original Growers and Others—Over half the volumes of 5 of the 6 flower types from California were shipped by firms other than the original growers (table 7). The original growers shipped most of the potted mums. Their percentages vary from 55 for roses to 89 percent of the standard mums.

Just the opposite situation exists for the important floral crops of Florida. More than 80 percent of the sample volumes of standard and pompon chrysanthemums and gladioli from that State were shipped by the original growers. Florida wholesalers did little shipping to out-of-State markets, other than small quantities to retail florist in the Caribbean Islands. The larger percentages indicated for carnations and roses, which are not grown in important quantities in Florida, reflect shipments to the Caribbean by these wholesalers.

Geographic Areas of Supply—Only two California shippers purchased supplies from other States (table 8). They purchased gladioli from Florida, probably during the winter season when California production is lowest.

Standard and pompon chrysanthemums and gladioli are important floral crops in Florida, but are produced on a seasonal basis. Six of the sample shippers from Florida purchase pompons and gladioli from Florida suppliers in season, and four purchase Florida standard mums.

Only seven respondents expected future changes in relative importance of their geographic areas of supply. Two California and two Florida shippers expect increased imports of carnations, standard and pompon chrysanthemums, and gladioli from South America and Guatemala.

Table 7.—Volumes and portion of shipments made by original growers,
26 California and Florida shippers, 1969/70

Shipping point and shipper	Chrysanthemums						Chrysanthemums					
	Carn.	Std.	Pom.	Pot.	Glads	Roses	Carn.	Std.	Pom.	Pot.	Glads	Roses
	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 dozen	1,000 blooms	Percent of volume					
California												
Original grower	16,804	1,044	299	50	159	6,482	34	11	28	86	27	45
Others	32,034	8,564	753	8	428	7,787	66	89	72	14	73	55
Total	48,838	9,608	1,052	58	587	14,268	100	100	100	100	100	100
Florida												
Original grower		3,485	3,149	408	6,641	440	(¹)	99	83	79	81	34
Other	158	37	642	111	1,556	849	100	1	17	21	19	66
Total	158	3,522	3,791	519	8,197	1,289	100	100	100	100	100	100

¹ Less than 0.5 percent.

Table 8.—Geographic areas of supply for 26 California and Florida flower shippers, 1969/70

Geographic areas of supply	Carn.	Std.	Pom.	Pot.	Glds	Roses	Individual firms
<i>Number of firms</i>							
California shippers that purchase from:	16	14	15	2	10	13	19
Local counties and California	16	14	15	2	10	13	19
Florida					2		2
Florida shippers that purchase from ¹	3	4	6	3	6	3	7
Local counties and Florida		4	6	3	6	1	7
North Central and Northeastern States					3	1	3
North & South Carolina			1		3		3
West Coast	3	3	3			3	3
Colorado	2					1	2
South America	3	2	1		1		1
Guatemala		1	1				1

¹ Includes cooperative.

Types of Supplying Firms—Eleven California shippers who purchase flowers receive them from growers only; seven purchase from both growers and wholesalers. Five Florida firms (including the cooperative) purchase from growers only, one purchases from both growers and wholesalers, and one wholesaler-respondent could not accurately classify his suppliers.

Only four firms indicated changes in the relative importance of the types of firms serving as their supply sources since 1964, and eight expected changes by 1974 (table 9). Two respondents expected to grow more flower supplies themselves by 1974, but three others intended to reduce their growing activities and purchase larger quantities. Two respondents expected to import more flowers in the future.

Numbers of Suppliers—California shippers had more individual suppliers than did firms in Florida, with five firms receiving carnations and standard mums from

11-20 suppliers and three firms obtaining standard mums from more than 20 suppliers. The maximum number of suppliers utilized by a firm in California for a single flower type was 50 suppliers marketing standard mums; the average number of suppliers by flower type in that State ranged from two for potted mums to 16 for standard mums (table 10). None of the Florida firms exceeded eight suppliers for a single flower type.

Most Florida firms and nearly a third of the California firms did not expect any changes in number of suppliers in the near future (table 11). Twelve respondents reported changes since 1964, with six claiming increases in number of suppliers and six stating that they now purchase from fewer suppliers.

Determination of Purchase Price—The respondents who purchased flowers from others were asked how they determine the purchase price they should pay (table 12). About three-fourths of the respondents replied "supply and demand" or "the market determines the price." One

Table 9.—Types of suppliers for 26 California and Florida shippers, by type of flower, 1969/70

Types of suppliers used	Carnations	Chrysanthemums			Gladolf	Roses	Individual firms
		Standard	Pompon	Potted			
	Number of firms						
California							
Growers only	10	9	10	2	7	9	11
Wholesalers only	1				2		1
Growers and wholesalers	5	5	5		1	4	7
Total	16	14	15	2	10	13	19
Florida							
Growers only ¹	1	2	4	2	5	2	5
Growers and wholesalers	1	1	1				1
Unknown	1	1	1	1	1	1	1
Total	3	4	6	3	6	3	7

¹ Includes a cooperative.

¹ Includes a cooperative.

Table 10.—Number of suppliers used by
California and Florida shippers, 1969/70

State and type of flower	Number answering:					Total firms	Min.	Mean	Max.
	1	2-3	4-10	11-20	20				
	Number of firms								
California									
Carnations		2	9	5		16	3	9	16
Std. mums		1	5	5	3	14	3	16	50
Pompons		3	9	2	1	15	2	9	35
Potted mums	2	1				3	1	2	3
Gladioli	1	7		2		10	1	4	16
Roses		6	7			13	2	4	10
Florida									
Carnations			2			3	5	6	8
Std. mums	1		2			3	1	5	8
Pompons		3	2			5	2	3	5
Potted mums	2					2	1	1	1
Gladioli	1	1	3			5	1	3	5
Roses		1	1			2	2	3	5

Table 11.—Changes in number of suppliers since 1964 and expected
by 1974, California and Florida shippers, 1969/70

Area and change expected	Since 1964			Expected by 1974		
	Calif.	Fla.	All firms	Calif.	Fla.	All firms
<i>Number of responses</i>						
Increases						
Increased business and therefore more suppliers	4		4	7		7
More people growing gladioli now; fewer growing pompons		1	1			
More suppliers; no reason given		1	1	1		1
Subtotal	4	2	6	8		8
Decreases						
Smaller growers ceasing production	2		2			
Climbing land values & production costs have reduced number of local growers	1		1	4		4
Labor shortages have reduced number of local growers					1	1
Respondent has increased growing activities; needs fewer suppliers		1	1			
Fewer suppliers; no reason given	1	1	2	2		2
Subtotal	4	2	6	6	1	7
No change expected	11	3	14	6	5	11
Total	19	7	26	19	7	26

Table 12.—Determination of market price paid by shippers, 26 California and Florida shippers, 1969/70

Response	California	Florida	Total
<i>Number of firms</i>			
"Supply and demand" or "market" determines price. . .	14	3	17
Grower sets price; shipper accepts if reasonable	5	1	6
Each year agree with supplier on price for following season based on experience		1	1
"Market really determines, but customer loyalty and habit are factors"		1	1
Total	19	6 ¹	25 ¹

¹ Cooperative omitted.

respondent explained by saying, "You base your price on what you heard yesterday."

Terms of Purchase—The most common practice in California was for purchasers to receive flowers from growers at local fields (table 13). This was done by one or more purchasers of each of the six flower types, and the number of purchasers interviewed who followed the practice ranged from one for potted mums to nine for pompons and standard mums. Three California respondents received their total supplies of carnations as deliveries by growers; this practice was also followed to a limited degree for pompons, potted mums, and gladioli. Certain California shippers received deliveries of flowers from growers and also received portions in local fields. More California respondents made all their purchases of each flower type except potted mums at local flower markets. Each Florida respondent who purchased carnations, potted mums, and roses received these crops f.o.b. a distant city (usually out-of-State), and was responsible for payment of all transportation charges.

Pricing Units—Price per bloom was the pricing unit mentioned most often for carnations and roses, although just over one-third of the California respondents specified "bunches of 25" for these flowers (table 14).

Most respondents indicated standard mums are priced by the bloom, pompons by the bunch, and gladioli by the dozen. Six-inch pots are the pricing units for potted chrysanthemums. A "bunch" of pompons usually consists of not fewer than five stems weighing a minimum of 12 ounces, with extra stems added to correct for deficient weight.

Discounts—Approximately 75 percent of the Florida and California respondents reported that they did not receive any discounts on flowers purchased for resale

Table 14.—Pricing units used by California and Florida flower shippers, 1969/70

Terms	California	Florida	Total firms
<i>Number of firms</i>			
Carnations			
Bloom	10	1	11
Bunch of 25	6	1	7
No indication	--	1	1
	16	3	19
Standard mums			
Bloom	13	2	15
Bunch of 50	1	--	1
No indication	--	1	1
	14	3	17
Pompons			
Bunch	15	4	19
Box of 25 to 30	--	1	1
	15	5	20
Potted mums			
6-inch pots	2	2	4
Gladioli			
Dozen spikes	10	4	14
Hamper	--	1	1
	10	5	15
Roses			
Bloom	8	1	9
Bunch of 25	5	1	6
No indication	--	1	1
	13	3	16

(table 15). One Florida and two California respondents stated that they received discounts "occasionally." Two firms in California appeared to receive discounts on purchases of carnations as a regular practice, and a Florida respondent found quantity discounts possible during periods of plentiful supply but difficult at other times.

Table 13.—Terms of purchase and point of delivery, 26 California and Florida flower shippers, 1969/70

Point of delivery	California						Florida					
	Carn.	Std.	Pom.	Pot.	Glads	Roses	Carn.	Std.	Pom.	Pot.	Glads	Roses
<i>Number of firms</i>												
F.o.b. local field	7	9	9	1	4	7			1		1	
Delivered by growers	3		1	1	1				1			
Local flower market	3	4	4		4	3						
Portion delivered; portion f.o.b. field	2	1	1		1	3						
F.o.b. local wholesaler												
F.o.b. distant suppliers							3	1	1	2	4	3
F.o.b. distant suppliers and consignors								2	2			
Total	16	14	15	2	10	13	3	3	5	2	5	3

Table 15.—Discounts obtained on flowers for resale by California and Florida flower shippers, 1969/70

Comment	California	Florida	Total
	Number of firms		
None	15	4	19
Occasionally	2	1	3
Often on carnations	2	--	2
Depends upon market	--	1	1
Total	19	6	25

OUT-OF-STATE MARKETING AND SHIPPING PRACTICES

Out-of-State shipments account for more than 90 percent of total sales of carnations and standard mums in California, and gladioli and pompons in Florida (table 16). California shippers send more than 75 percent of their roses and pompons to other States.

California and Florida growers of other flowers not included in this report also ship relatively large portions of their sales out of State, with the exception of potted mums in California. There was little difference in the proportion of out-of-State shipments by size of firm for either growers or wholesalers (appendix tables 11 and 12).

Types of Sales and Customers of Shippers—Shipments may be in response to actual sales or on consignment. Approximately 70 percent of the firms shipped only when an actual sale had been made (no consignments), and 28 percent made consignment shipments as well (table 17).

About half the firms shipped to wholesalers only, with 25 percent making only outright sales to the wholesalers, and approximately the same proportion making both sales and consignment shipments. Thirty-four percent of the firms shipped to both wholesale and retail florists, with 29 percent making sales only and 5 percent making consignments to wholesalers and sales to both wholesalers and retailers. Seven percent of the respondents made only direct sales to retail florists.

Nine percent of the firms (included under "other") made sales to other types of customers in addition to wholesale and/or retail florists. One California grower shipped to a grocery chain and wholesale florists; and a Florida wholesaler sold to wholesalers, retail florists, and European importers.

Consignments were most important in Florida, where 57 percent of the sample firms made consignments in addition to direct sales. Only 11 percent of the California respondents made consignments in out-of-State markets. Many California respondents, however, probably made consignments to wholesale markets within their own States.

A much larger proportion of growers than wholesalers made consignments, with 45 percent of the growers using this marketing method versus 4 percent of all wholesalers. The smaller growers appear to have used the consignment method more often than did larger growers.

In California, more than half the volumes of each of the six flower types were shipped as sales to wholesalers, with percentages ranging from 52 for gladioli to 86 for potted chrysanthemums (table 18). Sales to retail florists were second in importance in California, with percentages ranging from 5 for gladioli to 30 percent of the roses shipped by sample firms.

Table 16.—Proportion of total volume shipped out-of-State by California and Florida shippers, 1969/70

by California and Florida shippers, 1963/74						
Area and Type of Firm	Carnations	Chrysanthemums			Gladioli	Roses
		Standard	Pompons	Potted		
	Percent of Volume					
California						
Growers	96	48	78	20	68	63
Wholesalers	94	97	90	28	60	89
All California	95	91	86	21	63	77
Florida						
Growers & co-ops	--	87	93	80	93	25
Wholesalers	22	15	48	20	97	19
All Florida	22	81	91	65	94	24

Table 17.—Sales and consignments of flowers to wholesalers and retailers by shippers in California and Florida, 1969/70

retailers by shippers in California and Florida, 1969/70

Area and type of firm	No indication	Consignments & sales to:		Sales only to:				Total
		whole-salers only	Wholesalers and retailers	Wholesalers only	Wholesalers and retailers	Retailers only	Other ¹	
Percent of Volume								
California								
Growers	9	9	9	27	36	--	9	100
Wholesalers		6		31	56	6		100
All California	4	7	4	30	48	4	4	100
Florida								
Growers & co-ops		59	10	21		--	10	100
Wholesalers						75	25	100
All Florida		48	9	17		13	13	100
Total								
Growers	3	40	10	23	13	--	10	100
Wholesaler	--	5	--	25	45	20	5	100
All firms	2	26	6	24	26	8	8	100

¹ Firms using grocery chains, importers, or brokers as outlets in addition to sales (no consignments) to wholesalers and/or retail florists.

Table 18.—Sales of flowers to principal receivers, by type of flower and shipper, California and Florida, 1969/70

State and type of customer	Carnations	Chrysanthemums			Gladioli	Roses
		Standard	Pompon	Potted		
	Percent of firms					
California						
Wholesalers						
Sale	80	74	60	86	52	70
Consignment	5	8	5			
Retail florists	15	18	12	14	5	30
Grocery chains			(¹)		1	
Not specified			23		42	
Total	100	100	100	100	100	100
Florida						
Wholesalers						
Sale		67	54	25	76	34
Consignment		16	37		5	
Retail florists	100	16	9	20	16	66
Grocery chains				20		
Brokers				20		
European importers		1	(¹)	35	(¹)	
					3	
Total	100	100	100	100	100	100
Less than 0.5 percent						

¹ Less than 0.5 percent.

Florida's most important floral crops (in terms of value of sales) of the six flowers studied (standard and pompon chrysanthemums and gladioli) are shipped principally as direct sales to wholesalers, with percentages ranging from 54 for pompons to 76 percent of the gladioli. Direct sales to retail florists were second in importance for gladioli (16 percent of shipments), while consignments to wholesalers were second in importance for pompons (37 percent). Consignment to wholesalers and sale to retailers appear equal in importance for Florida standard mums, with 16 percent of shipments moving to each. Shipments of potted mums from Florida appear to have been almost equally

divided among sales to wholesale and retail florists, grocery chains, and "brokers."

Number of Customers per Shipper—California firms make out-of-State shipments to fewer individual customers than do the Florida respondents. None of the California firms shipped to more than 500 individual customers, while 17 percent of the Florida respondents exceeded this number (table 19).

Smaller growers shipped to fewer customers in out-of-State markets than did the smaller wholesalers. This difference diminishes, however, as the size of firm increases, with the larger growers resembling the large wholesalers in numbers of customers.

Table 19.—Number of customers per firm, California and Florida shippers, 1969/70

State and type of firm	Number of customers per shipper ¹							Number of customers per shipper		
	Not given	10 or less	11-50	51-100	101-500	Over 500	Total Percent	Min.	Mean	Max.
	<i>Percent</i>							<i>Number</i>		
California										
Growers	9	27	45	9	9	--	100	3	57	350
Wholesalers	--	6	25	31	38	--	100	9	90	140
All California	4	15	33	22	26	--	100	3	77	350
Florida										
Growers & co-ops		10	37	16	21	16	100	2	² 127	² 661
Wholesalers		25	50			25	100	10	528	2,075
All Florida		13	39	13	17	17	100	2	² 203	2,075
Total										
Growers	3	17	40	13	17	10	100	--	--	--
Wholesalers	--	10	30	25	30	5	100	--	--	--
All firms	2	14	36	18	22	8	100	--	--	--

¹Includes consignees. ²Two firms reporting only "more than 1,000 customers" not included.

Costs and Evaluation of Consignments—Consignment shipments were made in 1969 by 16 firms. Thirteen of these firms were in Florida and three in California.

The 16 respondents who had made consignment shipments in 1969 were asked what percentage of gross receipts was usually deducted as a commission by the consignees (table 20). Nine respondents who made consignments indicated that the customary deduction was 25 percent, four found the deduction to vary between 20 and 25 percent, and one replied 20 percent. One respondent indicated that he could occasionally make consignments to certain wholesalers for deductions of only 10-15 percent, but that the most common percentage was 25.

Just over half the Florida respondents and one of the three California shippers gave negative appraisals of consignment marketing and stated that they made shipments of this type only when they could not make

Table 20.—Percentage of gross receipts deducted by consignees, flower sales of California and Florida shippers, 1969/70

Percentage indicated ¹	California	Florida	Total
	<i>Number of firms</i>		
25 percent	1	8	9
20-25 percent	1	3	4
20 percent		1	1
Occasionally 10-15, usually 25 percent		1	1
No indication	1		1
Total	3	13	16

¹In addition to freight charge from shipper to consignee.

direct sales (table 21). These respondents believed that consignments were too uncertain and that it was not desirable to pay for transportation of shipments to distant wholesale markets when there was no guarantee that purchasers would be found.

A contrasting opinion was given by two medium-sized Florida growers who regarded consignment marketing very favorably and considered consignments an important part of their marketing programs. Each of these respondents stated that he concentrated heavily on shipping only a high-quality product and that all his shipments were made using a brand name. These shippers believed that purchasers in the large wholesale markets had begun to associate their brand names with a certain standard of quality and that this brand image allowed them to make consignment sales even in glut markets when lesser known merchandise was being dumped.

Table 21.—Evaluation of consignment marketing, California and Florida shippers, 1969/70

Evaluation	California	Florida	Total
	<i>Number of firms</i>		
Does not like consignment; uses only when cannot make direct sale	1	7	8
Consignment to selected firms profitable; but prefer sales	1	2	3
Consignment of quality product important part of marketing program .		2	2
No indication	1	2	3
Total 1969 consignors	3	13	16

¹Does not total 100.0 percent because of rounding.

Expected Trends in Types of Customers To Be Served by Shippers—Twenty-six percent of respondents expected increased shipping directly from the growing areas to various types of retail organizations and the by-passing of wholesale florists at the forward or retail end of the marketing chain (table 22).

Table 22.—Expected trends in types of customers, shippers in California and Florida, 1969/70

Comment	California	Florida	Total
	<i>Number of firms</i>		
Expect more sales by shippers to:			
Retail florists	3	3	6
Grocery chains and super markets ..	4		4
Retail florists & grocery chains		2	2
European imports, grocery chains, and retailers		1	1
Grocery chains do not offer market potential (otherwise no change) ...		3	3
No changes expected	20	14	34
Total	27	23	50

Seasonal Marketing Patterns

The California respondents indicated marketing activity at varying levels throughout the year, while

many of the Florida shippers do no marketing from July through October (table 23).

Several California respondents stated their peak marketing period for certain floral crops to be the spring months of April, May, and June, while others in California specified the entire April-October period as uniformly important. Others stated that their level of marketing remained stable over the entire year. In California, most carnation shippers gave the spring months as the peak period, while more shippers of standard mums, pompons, and gladioli specified the longer April-October period.

Most Florida growers defined their marketing season as November-June, with no marketings during the remainder of the year. Thirty-eight percent of Florida respondents classified as growers who shipped pompons and 70 percent of those shipping gladioli specified the first half of the November-February season as the peak market period. The latter half of the season (February-May) was specified by all Florida standard

Table 23.—Seasonal marketing patterns for flowers, California and shippers, 1969/70

Shipment	No indication	Market all year, peak in ¹			Market Nov.-June, peak in		Other	Total
		No peak	Apr.-June	Apr.-Oct.	Nov.-Feb.	Feb.-May		
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
California								
Carnations:								
Growers		40	40	20				
Wholesalers	7	13	53	27				
Total	5	20	50	25				100.0
								100.0
Standard mums:								
Growers		67		33				100.0
Wholesalers	8	15	15	62				100.0
Total	6	25	13	56				100.0
Pompons:								
Growers	20	20		60				100.0
Wholesalers	8	15	15	62				100.0
Total	11	17	11	61				100.0
Gladioli:								
Growers	50		50					100.0
Wholesalers	12	22	22	44				100.0
Total	18	18	27	36				100.0
Roses:								
Growers		75		25				100.0
Wholesalers	8	17	42	33				100.0
Total	6	31	31	31				100.0
Florida								
Standard mums:								
Growers ²						100		100.0
Wholesalers		33	67					100.0
Total		11	22			67		100.0
Pompons:								
Growers ²	8				38	38	15	100.0
Wholesalers			50	25	25			100.0
Total	6		12	6	35	29	12	100.0
Gladioli:								
Growers ²			10		70	20		100.0
Wholesalers		25	25	25	25			100.0
Total		7	14	7	57	14		100.0

¹ In addition to the December demand period. ² Includes Co-ops.

mum growers and by 38 percent of pompon and 20 percent of gladioli growers.

The Federal-State Market News Service has compiled statistics concerning the seasonality of Florida chrysanthemums and gladioli shipments. The principal season for each flower extends from late October to late June, with peak production usually during the latter half of the season (tables 24 and 25).

Geographic Market Areas—The North Central region

was mentioned most often by California shippers of carnations, standard mums and pompons, and the Northeast and West South Central regions were second and third, respectively, in frequency of reference by these respondents (table 26). California gladioli shippers mentioned the West South Central States most often, followed by the North Central and Mountain areas. Rose shippers in California specified the North Central, West South Central, and Southern areas (in that order).

Table 24.—Chrysanthemums (Mostly pompons, some standards): Florida interstate shipments, by month, 1959/60 through 1968/69 crop years

Crop year	October	November	December	January	February	March	April	May	June	Total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1959-69 ...	1	3	14	14	17	15	18	13	5	100
1960-61 ...	1	9	10	14	15	17	17	14	3	100
1961-62 ...	1	8	12	14	13	16	17	14	5	100
1962-63 ...	1	7	11	11	14	19	18	14	5	100
1963-64 ...	1	7	12	12	13	19	16	15	5	100
1964-65 ...	1	7	12	15	15	13	15	16	6	100
1965-66 ...	1	9	13	13	15	13	18	14	4	100
1966-67 ...	1	9	13	14	14	17	14	15	3	100
1967-68 ...	1	9	13	15	13	14	15	15	5	100
1968-69 ...	1	8	13	14	15	18	13	14	4	100

Source: Marketing Florida Ornamental Crops, Summary 1969 Season, Federal-State Market News Service, Orlando, Fla., Sept. 1969.

Table 25.—Gladioli: Florida interstate shipments, by month, 1959/60 through 1968/69 crop years

Crop year	October	November	December	January	February	March	April	May	June	Total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1959-60 ...	3	6	12	13	14	16	17	16	3	100
1960-61 ...	3	10	11	13	14	17	16	14	2	100
1961-62 ...	4	9	13	13	14	13	15	15	4	100
1962-63 ...	3	8	9	12	15	17	17	15	4	100
1963-64 ...	3	9	11	13	14	18	14	14	4	100
1964-65 ...	3	9	11	14	14	15	15	15	4	100
1965-66 ...	4	10	12	13	11	14	15	18	3	100
1966-67 ...	3	9	12	14	12	15	15	15	5	100
1967-68 ...	4	10	12	13	13	13	14	16	5	100
1968-69 ...	4	8	12	13	13	14	14	17	5	100

Source: Marketing Florida Ornamental Crops, Summary 1969 Season, Federal-State Market News Service, Orlando, Fla., Sept. 1969.

Table 26.—Out-of-State market areas for California and Florida flowers shippers, 1969/70

Shipment	United States						Hawaii, Alaska	Canada British Columbia	Europe	Carib- bean	Number firms responding
	North- east	South	North Central	W. South Central	Moun- tain	Pacific					
	Percent of responses ¹										Number
California shippers											
Carnations	55	45	80	55	25	15	10				20
Standard mums . .	60	47	80	53	27	7	13				15
Pompons	62	44	75	50	25	19	12				16
Gladioli	25	12	50	62	50	12	25				8
Roses	40	53	73	60	27	7	13				15
Florida shippers											
Standard mums . .	56	56	44	11		22		22	44		9
Pompons	59	41	65	12	6	18		24	29		17
Gladioli	50	50	50	21	7	29		36	21	21	14

¹ Does not total to 100 because most firms shipped to several market areas.

Foreign market areas were not mentioned by California respondents, but Hawaii and Alaska were specified as markets for each of the five flower types.

The Northeast, South, and North Central regions (approximately the eastern half of the Nation) are indicated as the important Florida out-of-State market areas, and were mentioned by similar proportions of the Florida respondents for each of the three flowers listed. Canada, British Columbia, the Caribbean area, and Europe were foreign market areas mentioned by Florida shippers.

Use of Brand Names, Product Identification—Many respondents mark at least a portion of the boxes and hampers they ship with a brand name or identification of some sort. The purpose is to differentiate these products from those of other shippers and to create a reputation for quality of product. Sometimes, a formal brand name is coined for use, but more often the shippers simply use their own name or firm name. Fifty-six percent of the shippers interviewed identified in this manner at least a portion of their shipments of the six specified flowers (table 27).

More than half (57 percent) of the Florida shippers marked at least a portion of the flowers they shipped, while just under half (44 percent) of the California shippers did so.

A greater proportion of California wholesalers (56 percent) than California growers (27 percent) used product identification. Approximately 60 percent of both growers and wholesalers interviewed in Florida followed this practice.

Shippers gave the physical volumes of flowers they marketed using brand names (table 28). Seventy-three percent of the roses are sold under brand names. Just over half of the volumes of pompons and gladioli from the two States were marketed using identifying brands, and only about 20 percent of the quantities of standard and potted chrysanthemums were shipped this way.

Trend in Private Label Importance—Sixty-one percent of the respondents indicated no knowledge of change in use of trademarks. Thirty-seven percent of those interviewed believed that the importance of trademarks is increasing, with more firms labeling shipments and deriving a positive benefit from doing so than in the past years (table 29).

Promotional Methods Used—Promotional methods used by firms include direct mail; advertisements in trade publications; advertisements in newspapers and magazines; donations of flowers to design schools, conventions, etc.; miscellaneous small favors, such as match books and pencils; signs and posters; and radio and television advertisements (table 30).

Table 27.—Use of brand names by shippers of flowers, California and Florida, 1969/70

	Growers & co-ops			Wholesalers brands used					All firms		
	Brands	None	Total	Growers	Whole-saler	Both	None	Total	Brands	None	Total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Carnations											
California	40	60	100	13	13		73	100	30	70	100
Florida				33			67	100	33	67	100
Total	40	60	100	17	11		72	100	30	70	100
Standard mums											
California		100	100	8			92	100	6	94	100
Florida	60	40	100	25	25		50	100	56	44	100
Total	37	63	100	12	6		82	100	24	76	100
Pompons											
California		100	100	8	8		84	100	11	89	100
Florida	54	46	100	25	25		50	100	53	47	100
Total	39	61	100	12	12		76	100	31	69	100
Potted mums											
California		100	100	50			50	100	33	67	100
Florida	50	50	100	50			50	100	50	50	100
Total	33	67	100	50			50	100	43	57	100
Gladioli											
California		100	100	22	11		67	100	27	73	100
Florida	60	40	100	25	25		50	100	57	43	100
Total	50	50	100	23	15		62	100	41	59	100
Roses											
California	50	50	100	33	17	8	42	100	56	44	100
Florida		100	100	33			67	100	25	75	100
Total	40	60	100	33	13	7	47	100	50	50	100
All flowers											
California	27	73	100	31	19		44	100	44	56	100
Florida	56	44	100	20	40	6	40	100	57	43	100
Total	39	61	100	29	24	5	42	100	50	50	100

Table 28.—Use of brand names by shippers of flowers in California and Florida, by type of flower, 1969/70

	Shipped by growers ¹			Shipped by wholesalers				Total shipments		
	Brands	None	Total	Growers	Whole-saler	None	Total	Brands	None	Total
<i>Percent of responses</i>										
Carnations										
California	61	39	100	1	32	67	100	41	59	100
Florida				6		94	100	6	94	100
Total	61	39	100	(²)	32	68	100	41	59	100
Standard mums										
California		100	100	1		99	100	1	99	100
Florida	76	24	100	29		71	100	75	25	100
Total	64	36	100	1		99	100	21	79	100
Pompons										
California		100	100	4	37	59	100	29	71	100
Florida	60	40	100	3		97	100	58	42	100
Total	55	45	100	4	33	63	100	52	48	100
Potted mums										
California		100	100	46		54	100	7	93	100
Florida	21	79	100	20		80	100	21	79	100
Total	19	81	100	45		55	100	20	80	100
Gladioli										
California		100	100	3	84	13	100	45	55	100
Florida	65	35	100		5	95	100	57	43	100
Total	63	37	100	1	22	77	100	56	44	100
Roses										
California	67	33	100	9	79	12	100	80	20	100
Florida		100	100	3		97	100	2	98	100
Total	62	38	100	8	72	20	100	73	27	100

¹ Includes cooperative. ² Less than 0.5 percent.

Table 29.—Flower shippers' opinions concerning the trend in importance of labeling California and Florida, 1969/70

State and type of firm	No change	Increasing	Decreasing	Total firms
<i>Percent of firms</i>				
California				100
Growers	55	45		100
Wholesalers	63	37		100
All California	59	41		
Florida				100
Growers & co-ops	68	27	5	100
Wholesalers	75	25		100
All Florida	70	26	4	

Most firms used direct mail advertising, followed by ads in trade publications, ads in papers and magazines, and donations of flowers to design schools and conventions. Small favors or gifts, signs and posters, and radio and television advertisements were of equal and lesser importance.

Customer Services Offered by Shippers—The services offered customers by shippers, other than standard packing for bulk shipment and customer credit, varied (table 31). Half of all sample firms provided such

consists of the packing of special combinations of color or types of chrysanthemums in boxes or of gladioli in hampers for shipment to customers. Small retailers request this service because they often need several colors or types of a given flower, but cannot utilize complete boxes of each of the colors needed within the shelf-life of these perishable products. Customers who are wholesale florists order such special combinations of flowers to allow reshipment to their smaller retail customers without repacking.

Table 31.—Customer services offered by flowers shippers, California and Florida, 1969/70

State and type of firm	Custom shipping only	Consumer unit packaging only	Custom shipping and local delivery	Consumer units, custom shipping	No services	Total
Percent						
California						
Growers		27			73	100
Wholesalers		25			75	100
Total California ...		26			74	100
Florida						
Growers & co-ops ...	74			5	21	100
Wholesalers	25		75			100
Total Florida	65		13	4	18	100
Total						
Growers	47	10		3	40	100
Wholesalers	5	20	15		60	100
All firms	30	14	6	2	48	100

services. The proportions varied greatly between the two States, however, with 82 percent of the Florida firms and only 26 percent of the California respondents offering one or more of these services. Slightly over half of all growers and under half of the wholesalers interviewed offered the services.

The only customer service offered by California respondents—done by 26 percent of the firms—was consumer unit packaging.

Custom packing of special shipping units, tabulated under "custom shipping," was the most important service offered by Florida respondents, being provided by 82 percent of the shippers (table 32). This service

Determination of Selling Price—Two general philosophies were followed by respondents in determining pricing policy (table 33). The first of these was that "supply and demand" or "the market" determines the price and "I will simply get as much as I can." This philosophy was held by 67 percent of all growers interviewed and 13 percent of the wholesalers.

In contrast, 87 percent of the wholesalers and one-third of the growers determine the cost of crops purchased or produced, decide upon a desired margin, and attempt to obtain this margin in the market. The success of these efforts are, of course, dependent upon market conditions, but an effort is made to determine and obtain a definite margin.

The margins sought were described by a small number of respondents. These ranged from 18 to 40 percent, with one respondent indicating 40 percent as his desired margin and 33 1/3 percent as the minimum required for profitable operation. Only 24 percent of the Florida shippers allowed quantity discounts on a portion of their sales. Only 12 percent of the California respondents allowed discounts for prompt payment. There does not appear to be an accepted discount policy within the industry.

Terms of Sale: Point of Delivery—Various agreements were made between respondent shippers and their customers concerning point-of-delivery for flower sales (table 34). The most common sale was f.o.b. the shipper's business location, in which the seller agrees to place the shipment on board the initial carrier with all

Table 32.—Expected trends in customer services, California and Florida shippers, 1969/70

Expected trend	Calif.	Fla.	Total
Number firms			
Increasing:			
More consumer unit packaging	5		5
More delivery service to out-of-town customers .		1	1
Type Increase not specified	5	2	7
Decreasing		3	3
No change expected	17	17	34
Total	27	23	50

Table 33.—Determination of selling price by California and Florida flower shippers, 1969/70

Comment	California		Florida		Total	
	Growers	Wholesalers	Growers ¹	Wholesaler	Growers	Wholesalers
	Percent	Percent	Percent	Percent	Percent	Percent
"Supply and demand," or "market" determines price	82	6	60	25	67	10
Cost of merchandise plus a margin; limited by market conditions:						
18-22 percent		6				5
25 percent				25		5
Minimum of 33 1/3 percent, tries for 40				25		5
40 percent			10		7	
No percentage given	18	75	10	25	14	65
Negotiates price at beginning of season, based upon expected costs plus markup; may adjust price later if market declines			10		7	
Rather hold and dump than cut price later			10		6	
No indication		13				10
Total	100	100	100	100	100	100

¹ Cooperative included

Table 34.—Terms of sale: Point of delivery used by California and Florida flower shippers, 1969/70

Item	Calif.	Fla.	Total firms
	<i>Number of firms</i>		
F.o.b. respondent's door	25	2	27
F.o.b. carrier in respondent's city	2	8	10
Sales—F.o.b. respondent's city; consignment-freight deducted by wholesaler		8	8
F.o.b. suitable carrier, distant city		3	3
Portions C.o.d.; portions F.o.b. respondent's city		1	1
To retailers—F.o.b. destination airport; to wholesalers—F.o.b. respondent's city		1	1
Total	27	23	50

freight charges paid by the purchaser. This practice was followed by more than half the firms interviewed and was used by 93 percent of the respondents in California.

Terms of Sale; Shipping Units—The shipping or packing units used by Florida respondents for shipments to out-of-State markets are given in table 35. The data from California are less detailed (table 36).

Boxes containing 20 to 30 bunches were mentioned most often by shippers of carnations and pompons. Twelve to 24 bunches per box were most common for shipments of roses. Standard chrysanthemums were shipped most often in boxes of 10 to 17 dozen and gladioli in hampers of 20 to 30 dozen. Potted chrysanthemums were shipped in boxes containing 6 or 8 pots.

Modes of Transportation Used—The proportions of California and Florida shippers who used each of four modes of transportation (air, rail, truck, and bus) in making out-of-State flower shipments are given in table 37. Responses were obtained from each of the 50 firms for the year 1969 and from 31 of these firms for 1964. Data for the 31 firms are compared in tables 37-39.

For the combined two-State area, the trend is toward use of air and bus facilities by more firms, an important decrease in the proportion of firms making rail shipments, and a stable or slightly declining number of firms making shipments by truck. The proportion of responding firms in the two-State area making air shipments increased from 90 percent in 1964 to 97 percent in 1969, with the greatest increase occurring in Florida. Percentages of responding firms using bus facilities increased from 29 to 35 percent during this period.

The proportion of respondents in the combined shipping points making rail shipments declined from 26 percent in 1964 to 0 percent in 1969.

The Federal-State Market News Service has estimated the volume of chrysanthemums and gladioli shipped from Florida by transportation mode used (table 40). Standard and pompon chrysanthemums are combined in these estimates.

The estimated percentages moving by air and truck are comparable with those obtained from the personal interview survey, except that the interviews indicated larger proportions shipped by truck in 1964. The interviews, therefore, indicate a slight decrease in proportion of these flowers moved by truck in 1969 while the Market News Service figures show a slight increase. The personal interview estimate for 1964 is based upon records of 31 firms.

Table 35.—Terms of sale: Shipping units used by Florida shippers
of flowers, 1969/70

Shipping units	Carn.	Chrysanthemums			Gladioli	Roses
		Standard	Pompons	Potted		
	Percent of responses					
Bunches per box: [†]						
12-24 bunches/box	67		70			50
25-30			6			
31-40			6			
41-50 to retailers; 25-40 to wholesalers			6			
51 full bunches or 30 1/2-bunches			6			
51 by truck; 35 by air			6			
Bunches/box not specified						25
Dozens per box:						
10-17 dozen/box		56				
Pairs of "1/2-boxes" of 6 dozen each taped together		11				
Dozens per hamper:						
20-30 dozen/hamper					86	
31-25 to retailers; 20-25 to wholesalers					7	
6 in boxes of 125-150 blooms		22				
6 of 6-8 pots				50		
Indication	33	11	6	50	7	25
Total	100	100	100	100	100	100

inches vary in size, but are normally 25 blooms of carnations, than 5 stems weighing a minimum of 12 ounces.
standard mums, or roses. For pompons, it is usually not fewer

Table 36.—Terms of sale: Shipping units used by flower shippers
in California and Florida, 1969/70

Shipping unit	California						Florida					
	Carn.	Chrysanthemums			Glads.	Roses	Carn.	Chrysanthemums			Glads.	Roses
		Std.	Pom.	Pot.				Std.	Pom.	Pot.		
	Number of shippers											
bunches in boxes:												
12-24 bunches/box						1						2
20-30	2						2	12				
36								1				
18-20 to retailers; 25-40 to wholesalers								1				
25 full bunches or 30 1/2-bunches								1				
30 by truck; 35 by air	18	2	18			15		1				1
Bunches/box not specified												
dozens in boxes:												
10-17 dozen/boxes								5				
Pairs of "1/2-boxes of 6 dozen each taped together								1				
Dozen/box not specified		1										
dozen in hampers											12	
20-30 dozen/hamper												
12-25 to retailers; 20-25 to wholesalers											1	
Dozen/hamper not specified					11							
bulk in boxes								2				
125-150 blooms												
Blooms/box not specified		13									2	
boxes of 6-10 pots				3								
1 mixed boxes of other flowers							1	1	1	2	1	1
No Indication												
Total	20	16	18	3	11	16	3	9	17	4	14	4

Table 37.—Proportion of California and Florida shippers using various modes of transportation, 1964 and 1969

Years and States	Air	Rail	Truck	Bus	Total responses
<i>Number of firms</i>					
1964					
California ...	17	3	15	6	17
Florida	11	4	13	3	14
Total	28	7	28	9	31
1969					
California ...	17	--	14	8	17
Florida	13	0	13	3	14
Total	30	0	27	11	31

Quality Claims and Rejected Shipments—Twenty-five percent of all respondents considered rejected shipments and quality claims important problems, with the percentage varying by State from 19 in California to 30 percent in Florida (table 41).

The 12 respondents who indicated that rejected shipments and quality claims were important problems were asked if these claims usually resulted from quality deterioration in transit or from other reasons (such as errors or misunderstandings about quality specifications)(table 42). Although two California respondents indicated that errors in quality specification between buyer and seller or grading were occasional problems, the 12 firms gave quality deterioration in transit as the important reason for rejected shipments and quality claims. Freezing and overheating during layovers at air terminals were blamed most often, and rough handling in all modes of transport was also important. Lost shipments and deliveries left in extreme cold or direct sunlight at retail floral shops were also mentioned.

All respondents were asked what percentage of their shipments (in terms of volume) resulted in claims against carriers in 1969 (table 44). Although large differences were not found, more difficulty was attributed to air carriers than to other modes of transportation. Buses were second in importance of claims, and trucks were rated best. Twelve percent of the firms using air transportation estimated that more than 5 percent of the volumes shipped by this mode resulted in claims. Twelve percent of those who used buses estimated claims above

this level, and the 5-percent claim level was given by 7 percent of those who shipped by truck. Claims amounting to more than 2 percent of volume shipped were indicated by a larger proportion of respondents who shipped by bus, however, than by those who used the other transportation modes. The higher proportion of claims were indicated most often by Florida respondents.

Consistency of Quality Grading—The respondents were asked who grades or designates the quality of the flowers they ship, and if these grades or quality designations are consistent over the complete season and during all market conditions (table 45). Almost without exception, the floral crops are sorted for quality or, in the case of gladioli, graded by the grower. The wholesalers who purchase from growers depend upon the grading or sorting done by the growers.

The growers who do the sorting or grading believe the quality is consistent. Many of the wholesalers, however, believed that the quality or grade designations are not consistent over the entire season. This was true even for gladioli, for which a more rigid grading system has been devised. The wholesalers indicate that as the season progresses and the quality of the crop declines, the quality requirements of given grades are relaxed.

Growers and wholesalers agreed that the reputations of individuals and experience between buyer and seller are the factors considered in transactions, rather than grades or standard quality designations on specific lots of flowers.

MARKET PERFORMANCE FACTORS

Prices—Average prices received in 1969 by shippers for the six flowers specified were estimated using the physical volumes and gross sales receipts given by these respondents. The price ranges recorded for each type of flower are wide because of the different types and geographic areas represented (appendix tables 13-18).

California shippers apparently received lower prices than Florida shippers for each type of flower except gladioli and potted mums. Florida, the most important gladioli-producing State, received lower prices for them.

The sample of shippers of potted chrysanthemums was too small for definitive answers.

Price Comparisons, 1964-69—Some shippers interviewed gave both quantities and dollar receipts of 1964 sales of the specified flowers. These data were used in computing average per unit values, which were assumed as prices. Percentage changes in average prices for 1969 versus 1964 were calculated for these firms and are summarized in table 46.

State and type of transportation	1964										1969				
	Carn.	Chrysanthemums				Roses	Glads.	Carn.	Chrysanthemums					Glads.	Roses
		Std.	Pom.	Pots	Pots				Std.	Pom.	Pots	Pots	Pots		
	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 pots	1,000 blooms	1,000 dozen	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 pots	1,000 pots	1,000 dozen	1,000 blooms
California															
Air	19,298	2,648	106	---	---	8,485	11	29,322	5,484	255	---	---	---	20	10,570
Rail	224	54	10	---	---	223	(¹)	---	---	---	---	---	---	---	---
Truck	2,644	469	35	40	---	594	9	4,183	680	59	51	---	---	14	826
Bus	347	94	12	---	---	643	2	623	104	7	(¹)	---	---	6	573
Total	22,513	3,265	163	40	40	9,945	22	34,128	6,268	321	51	---	---	40	12,069
Florida															
Air	---	---	167	43	---	---	254	5	---	298	11	---	---	583	---
Rail	4	4	3	---	---	11	167	---	---	---	---	---	---	---	---
Truck	---	---	2,084	383	---	---	3,101	---	588	2,350	104	---	---	3,417	---
Bus	4	5	12	---	---	11	4	15	72	14	---	---	---	16	36
Total	8	9	2,266	426	426	22	3,526	20	660	2,662	115	---	---	4,016	36
Total															
Air	19,298	2,648	273	43	---	8,485	265	29,327	5,484	553	11	---	---	603	10,570
Rail	228	59	13	---	---	234	167	---	---	---	---	---	---	---	---
Truck	2,644	469	2,119	423	---	594	3,111	4,183	1,268	2,409	---	---	---	3,431	826
Bus	351	95	24	---	---	654	6	638	176	21	155	---	---	22	709
Total	22,520	3,275	2,429	466	466	9,967	3,549	34,148	6,928	2,983	166	---	---	4,056	12,105

¹ Less than 500 dozen or pots.

Table 39.—Percentage of volume shipped by transportation mode, 31 California and Florida firms, 1964 and 1969

State and type of transportation	1964—Percentage of volume reported										1969—Percentage of total firm volume									
	Carn.	Chrysanthemums						Roses	Glads	Carn.	Chrysanthemums						Glads	Roses		
		Stan.		Pom.		Pot.					Stan.		Pom.		Pot.					
		Percent	Percent	Percent	Percent	Percent	Percent				Percent	Percent	Percent	Percent	Percent	Percent				
California																				
Air	86	81	65	--	48	85		86	87	80	--	--		50		87				
Rail	1	2	6	--	1	2		--	--	--	--	--		--		--				
Truck	12	14	22	100	41	6		12	11	18	100	100		35		7				
Bus	1	3	7	--	10	7		2	2	2	--	--		15		6				
Total	100	100	100	100	100	100		100	100	100	100	100		100		100				
Florida																				
Air	--	--	7	10	7	--		25	--	11	10			15		--				
Rail	49	50	--	--	5	50		--	--	--	--	--		--		--				
Truck	--	--	92	90	88	--		--	89	88	90			85		--				
Bus	51	50	1	--	--	50		75	11	1	--	--		--		100				
Total	100	100	100	100	100	100		100	100	100	100	100		100		100				
Air	86	81	11	9	7	85		86	79	18	7			15		87				
Rail	1	2	1	--	5	2		--	--	--	--			--		--				
Truck	12	14	87	91	88	6		12	18	81	93			84		7				
Bus	1	3	1	--	--	7		2	1	1	--			1		6				
Total	100	100	100	100	100	100		100	100	100	100	100		100		100				

Table 40.—Federal-State Market News Service estimates of Florida shipments by transportation mode, 1963-64 and 1968-69

Shipment	1963-64		1968-69	
	Volume	Percent	Volume	Percent
	<i>Cartons</i>	<i>Percent</i>	<i>Cartons</i>	<i>Percent</i>
Chrysanthemums				
Air	51,491	10	73,346	12
Truck	361,674	72	545,151	88
Other	89,809	18	2,490	(¹)
Total	502,974	100	620,897	100
Gladioli				
Air	64,929	8	140,789	19
Truck	469,602	60	586,537	79
Other	251,622	32	16,132	2
Total	786,153	100	743,458	100

¹ Less than 0.5 percent

Table 41.—Respondents' opinions of importance of rejected shipments and quality claims by buyers, California and Florida shippers, 1969/70

Opinion	Calif.	Fla.	Total	Calif.	Fla.	Total
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Important problem ..	5	7	12	19	30	24
Not Important	22	16	38	81	70	76
Total	27	23	50	100	100	100

Table 42.—Reasons for rejected shipments and quality claims, 50 California and Florida flower shippers, 1969/70

Reason	California	Florida	Total
	<i>Number</i>	<i>Number</i>	<i>Number</i>
Quality deterioration in transit only	3	7	10
Deterioration in transit and errors in specification of quality	2		2
Total	5	7	12

Table 43.—Claims adjustment policies, 50 California and Florida flower shippers, 1969/70

Claim	California	Florida	Total
	<i>Number</i>	<i>Number</i>	<i>Number</i>
Quarantee shipments and file claims	2	3	5
File claims but not guarantee reimbursement	3	4	7
Total	5	7	12

Table 44.—Portions of out-of-State shipments resulting in claims against carriers, 48 California and Florida flower shippers, 1969/70

Carriers	Percent of shipments				Percent of shipments			
	0-1	2-5	Over 5	Total	0-1	2-5	Over 5	Total
	<i>Number of firms</i>				<i>Percent of firms</i>			
Air								
California	22	3	1	26	84	12	4	100
Florida	14	3	5	22	63	14	23	100
Total	36	6	6	48	76	12	12	100
Truck								
California	19	0	1	20	95	0	5	100
Florida	14	4	2	20	70	20	10	100
Total	33	4	3	40	83	10	7	100
Bus								
California	9	0	1	10	90	0	10	100
Florida	4	2	1	7	57	29	14	100
Total	13	2	2	17	76	12	12	100

Table 45.—Flower shippers opinions of flower quality, California and Florida, 1969/70

Are grade designations consistent throughout the season?	Growers			Wholesalers		
	Yes	No	Total	Yes	No	Total
<i>Number replies</i>						
California						
Carnations	5		5	10	5	15
Standard mums	3		3	8	5	13
Gladioli	1	1	2	8	1	9
Roses	4		4	8	4	12
Florida						
Standard mums	5		5	3	1	4
Gladioli	9	1	10	2	2	4

Table 46.—Changes in prices received, California and Florida flower shippers, 1964-69

Flower	No change	Percentage increase				Total
		1-15	16-30	31-50	51+	
Percent of firms reporting						
Carnations						
California						
Growers	50	50				100
Wholesalers	46	18	18	18		100
All California	47	27	13	13		100
Standard Mums						
California						
Growers			100			100
Wholesalers		60	40			100
All California		55	45			100
Pompons						
California						
Growers	50		50			100
Wholesalers	30	40	20	10		100
All California	34	33	25	8		100
Florida						
Growers and co-ops	70		20	10		100
Wholesalers	50				50	100
All Florida	67		17	8	8	100
Gladioli						
California						
Growers			100			100
Wholesalers		50	13	37		100
All California		45	22	33		100
Florida						
Growers and co-ops	50		25	12	13	100
Wholesalers		50			50	100
All Florida	40	10	20	10	20	100
Roses						
California						
Growers	50	50				100
Wholesalers		38	37	25		100
All California	10	40	30	20		100

Just over half the California shippers of carnations who reported 1964 prices indicated increases in average prices received over the 5-year period. The proportions were about the same for growers and wholesalers.

Increases in standard chrysanthemum prices of from 1 to 30 percent were indicated for all reporting California shippers of these flowers.

Only one-third of the reporting Florida pompon shippers indicated price increases for this crop, while

increases were shown for two-thirds of the California respondents who shipped pompons. The price increases reported by Florida respondents were greater, however, than for the California firms.

Increases in prices received for gladioli were indicated by all the reporting California shippers, while only 60 percent of the Florida gladioli shippers experienced increases. Ninety percent of the California shippers of roses who reported 1964 prices experienced price increases in the period 1964-69.

Price Differences Among Markets—Sixty-three percent of all respondents (70 percent of California and 43 percent of Florida) believed there were no price differences among markets (table 47).

Table 47.—Opinions of price differences among geographic markets, California and Florida flower shippers, 1969/70

Opinion on price difference	California	Florida	Total
<i>Number of firms</i>			
No differences among markets	19	10	29
Differences described:			
Major big-city markets			
a. offer consistently lower prices	5	6	11
b. fluctuate more rapidly with market conditions		4	4
Higher prices in immediate southeastern States (Florida respondents only)		2	2
Transportation improvements are reducing differences among markets		1	1
Random variation among all markets at all times	1		1
Miscellaneous	2		2
Total	27	23	50

Twenty-six percent of those interviewed stated that there were differences between the prices received in the major flower markets in large cities versus those obtained in smaller cities and towns. Nineteen percent of the California respondents and 26 percent of those in Florida believed that prices were consistently lower in the major big-city markets. Most of these firms concentrate their marketing activity toward retail florists and occasional wholesalers in smaller cities and towns. In periods of depressed prices, they market in the major markets by consignment.

Trend in Sales Volume per Firm—All California respondents who shipped carnations and standard chrysanthemums in 1964 reported either stable or increased sales of these flowers in 1969 (table 48). California shippers indicated reductions in sales of pompons, gladioli, and roses by 17, 25, and 11 percent, respectively.

Approximately 10 percent of the Florida shippers of pompons and gladioli indicated no change in sales volumes of these flowers in 1969 over 1964.

Markup on Flowers Purchased for Resale—The respondents who purchased flowers for resale noted a normal markup of 21 to 30 percent above purchase price for each flower type except potted chrysanthemums and gladioli (table 49). Markups of from 31 to 40 percent were second in importance.

Table 48.—Changes in volume sold per firm, California and Florida flower shippers, 1968/69

Table 48.—Changes in volume sold per firm, California and Florida flower shippers, 1952-53							
State and shipper	Reduction	No change	Percent increase				Total
			1-50	51-100	101-200	201+	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
California							
Carnations:							100
Growers		50	50			9	100
Wholesalers		18	55		18	7	100
All firms		27	53		13		100
Standard mums:							100
Growers		100			11	11	100
Wholesalers		22	56		10	10	100
All firms		30	50				100
Pompons:						50	100
Growers		50					100
Wholesalers	20	30	30		20	8	100
All firms	17	33	25		17		100
Gladioli:							100
Growers		100			14		100
Wholesalers	29	29	28		12		100
All firms	25	38	25				100
Roses:							100
Growers	50		50			28	100
Wholesalers		29	43			22	100
All firms	11	22	45				100
Florida							
Pompons:							100
Growers and co-ops...	10	40	30	20		50	100
Wholesalers				50			100
All firms	8	34	25	25		8	100
Gladioli:							100
Growers	12	25	13	50			100
Wholesalers		50	50				100
All firms	100	30	20	40			100

Table 49.—Markup on flowers purchased for resale, responses of California and Florida flower shippers, 1969/70

Flower and State	Percentage markup ¹				Received consignment	No response	Total
	10-20	21-30	31-40	Over 40			
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Carnations							
California	6	50	25	13		6	100
Florida		67	33				100
Standard mums							
California	21	50	22	7			100
Florida ¹		67	33				100
Pompons							
California	7	66	13	7		7	100
Florida ¹		60	20	20			100
Potted mums							
California		50	50				100
Florida ¹		50	50				100
Gladioli							
California	10	30	40	10		10	100
Florida ¹		80	20				100
Roses							
California	8	54	31	7			100
Florida		67	33				100

¹ Difference between purchases and sales price as a percentage of purchase price.

More shippers specified higher markups (above 30 percent) for potted mums and gladioli than for the other flower types. Standard mums and roses were second in importance in proportion of respondents indicating these higher markups, followed by pompons and carnations. Markups of 21 to 30 percent were mentioned most often by both California and Florida respondents.

Approximately half the respondents who purchased flowers for resale in 1969 indicated that the margins realized on these flowers varied with market supply and demand conditions (table 50). Most were California respondents. They constituted 63 percent of the shippers interviewed in that State.

Table 50.—Flexibility of markup on flowers purchased for resale, California and Florida flower shippers, 1969/70

Markup trend	Calif.	Fla. ¹	Total
	Number	Number	Number
May reduce markup in glut market, raise in good market (not mentioned) . . .	4	1	5
Reduce markup in glut market, raise in good market	6		6
May reduce markup in good market	2		2
Markup does not vary	7	5	12
Total	19	6	25

¹ Cooperative omitted.

EXPECTED TRENDS IN DEMAND, PRODUCTION, AND TYPES OF FIRMS

Consumer Demand—Three-fourths or more of the respondents in each State who expressed opinions concerning carnations, standard and potted chrysanthemums, and roses believed that consumer

demand for these crops was increasing (table 51). A similar optimistic view was expressed for pompons in Florida. A more pessimistic demand outlook was given for gladioli in Florida and for pompons in California.

Table 51.-Flower shippers opinions of trends in production of specified flowers, California and Florida, 1969/70

Flower and State	Decreasing	Stable	Increasing	Total opinions	No opinions	Total respondents
<i>Number of replies</i>						
Carnations		6	17	23	4	27
California			4	4	19	23
Florida		6	21	27	23	50
All						
Standard mums		4	15	19	8	27
California	1	1	6	8	15	23
Florida	1	5	21	27	23	50
All						
Pompons		9	12	21	6	27
California	2	2	12	16	7	23
Florida	2	11	24	37	13	50
All						
Potted mums	1		7	8	19	27
California	1		5	6	17	23
Florida	2		12	14	36	50
All						
Gladioli	2	3	9	14	13	27
California	2	8	4	14	9	23
Florida	4	11	13	28	22	50
All						
Roses		3	14	17	10	27
California		1	4	5	18	23
Florida		4	18	22	28	50
All						

Only 29 percent of the Florida respondents who expressed opinions felt demand for gladioli to be increasing. Fifty-seven percent of the opinions concerning California pompons indicated increasing demand.

Production Expectations by Area—More than 50 percent of the California respondents who expressed opinions expected production of carnations, standard and potted chrysanthemums, and roses to increase in that State. Twenty-six percent expected pompon production to increase, and only 9 percent expected increased gladioli production.

Approximately two-thirds of the Florida shippers who indicated opinions concerning future production of standard and potted chrysanthemums expected increases in volumes of these flowers (table 52). Only 42 percent expected increases in pompons. Seventy percent of the responding shippers believed that production of gladioli, the most important floral crop in Florida, would remain stable. Production of carnations and roses in Florida, which are not important floral crops in that State, were not expected to increase.

Exterior Developments Affecting Industry—Most shippers believed that developments exterior to the

Table 52.—Expected trends in supplies of selected flowers, California and Florida, 1969/70

Flower and State	Substantial decline	Slight decline	No change	Slight increase	Substantial increase	Total opinions	No opinions	Total firms
<i>Number of replies</i>								
California								
Carnations	---	4	3	9	5	21	6	27
Standard mums	---	3	5	6	3	17	10	27
Pompons	1	3	10	4	1	19	8	27
Potted mums	---	2	1	3	---	6	21	27
Gladioli	---	5	5	---	1	11	16	27
Roses	---	4	3	7	7	21	6	27
Florida								
Carnations	---	---	6	1	---	7	16	23
Standard mums	1	2	1	9	1	14	9	23
Pompons	1	3	7	8	---	19	4	23
Potted mums	1	---	2	2	4	9	14	23
Gladioli	---	2	11	3	---	16	7	23
Roses	---	1	4	2	---	7	16	23

floral industry would have little effect on the future of their business (table 54). Urban development and the resulting increased property taxes were mentioned most often by those who were concerned, principally in Florida. Smog was second in importance as an exterior hindrance in California. One Florida respondent indicated that work stoppages by transportation and cemetery workers occasionally affect his sales.

Several respondents mentioned the favorable effect of the affluent society upon demand for flowers, the effects of weather (other than smog), and foreign competition. These replies were not included.

Barriers to Entry of New Firms—The respondents indicated few barriers to entry of new firms to the flower-growing or wholesaling industries. Cost and unavailability of suitable land were mentioned as barriers in California. References to large investment requirements (other than for land), unavailability of

credit, and foreign competition were mentioned by both California and Florida shippers, but were not considered important barriers to entry of new firms.

Table 53.—Flowershippers' opinions of external factors affecting ornamentals industry, California and Florida, 1969/70

Factor	Calif.	Fla.	Total
<i>Number of replies</i>			
None	18	13	31
Urban development and increased property taxes ...	2	9	11
Urban taxes and smog	2	---	2
Smog	5	---	5
Labor strikes of transportation and cemetery workers	---	1	1
Total	27	23	50

Appendix table 1.—Volumes sold, selected floral crops, 23 States, California and Florida, 1956-70

Flower and production area	Unit	Year ¹													
		1956	1957	1958	1959	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
		Number Number Number Number Number Number Number Number Number Number Number Number Number Number Number													
Carnations	1,000 blooms	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23 States		99,950	102,468	114,251	134,271	135,040	152,288	180,142	188,819	198,460	244,399	264,871	321,484	372,762	713,325
California		(²)	(¹)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Florida		---	---	---	568	---	---	---	---	---	---	---	---	---	---
Standard mums	1,000 blooms	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23 States		24,266	25,598	27,987	36,579	38,708	43,413	52,747	46,395	50,904	61,653	61,658	62,368	70,654	81,465
California		1,223	754	1,235	2,199	3,737	4,524	5,100	6,649	6,017	9,289	9,137	10,192	10,042	9,270
Florida		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pompons	1,000 bunches	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23 States		3,680	2,912	2,928	3,936	3,302	3,469	4,204	4,789	5,373	6,081	5,791	7,841	9,571	9,956
California		5,277	7,474	7,172	7,637	8,405	8,816	10,407	9,425	10,174	11,771	11,391	12,521	13,447	11,829
Florida		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potted mums	1,000 pots	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23 States		---	---	---	---	---	---	---	---	---	---	---	---	---	---
California		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Florida		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Gladioli	1,000 dozen	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23 States		2,308	2,120	2,164	2,489	2,367	2,542	2,823	2,831	3,456	3,835	3,516	3,660	3,566	3,104
California		14,560	16,471	12,989	15,091	16,314	16,480	16,004	16,157	15,871	17,858	16,258	17,905	17,366	13,854
Florida		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Roses	1,000 blooms	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23 States		67,450	67,414	67,789	73,987	73,599	79,325	80,825	86,603	94,450	106,541	113,634	142,207	156,169	156,699
California		(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Florida		---	---	---	---	---	---	---	---	---	---	---	---	---	---

¹No estimates made for 1960 crop year; estimates for 23 States totals and for potted mums begun 1966. ²Florida not published to avoid disclosure of individual operations.

Appendix table 2.—Wholesale value of sales, selected floral crops, 23 States, California and Florida, 1956-70

Flower and production area	Year ¹													
	1956	1957	1958	1959	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
Carnations														
23 States														
California														
Florida	4,198 (¹)	4,816 (²)	5,484 (³)	6,368 54	6,693 (¹)	7,518 (¹)	9,156 (²)	9,428 (²)	10,498 (²)	13,302 (²)	40,174 (²)	44,898 18,471	47,696 20,566	47,750 21,895
Standard mums														
23 States														
California														
Florida	2,499 205	2,867 139	2,827 193	4,335 310	4,660 546	4,784 712	5,975 837	5,480 940	6,195 959	7,509 1,444	8,016 1,604	9,641 1,804	9,962 1,888	10,590 1,863
Pompons														
23 States														
California														
Florida	1,218 3,937	1,107 5,232	1,025 5,522	1,678 5,159	1,646 5,891	1,713 6,250	2,200 7,656	2,311 6,426	2,907 6,965	3,589 8,241	3,527 8,778	5,230 9,591	6,911 9,591	26,651 8,706
Potted mums														
23 States														
California														
Florida														
Gladoli														
23 States														
California														
Florida	1,249 7,775	1,166 9,059	1,212 7,664	1,377 7,982	1,416 8,443	1,595 9,410	1,803 9,793	1,747 9,431	2,236 9,427	2,613 11,706	2,663 10,841	3,473 12,713	3,387 13,129	3,111 11,277
Roses														
23 States														
California														
Florida	4,114 (²)	4,180 (²)	4,406 (²)	4,929 114	4,966 113	5,502 324	5,875 682	6,627 408	7,890 342	9,327 439	10,620 486	13,245 516	14,512 372	14,113 284

¹No estimates made for 1960 crop year; estimates for 23 State totals and for potted mums began 1966. ²Florida not published to

avoid disclosure of individual operations.

Source: Flowers and Foliage Plants,

Production and Sales in Selected States, U.S. Dept. Agr., SRS, Stat. Bul. No. 442 and supplement.

Appendix table 3.—Plants or acres in production, selected floral crops, 23 States,
California and Florida, 1956-70

Flowers and production area	Unit	Year ¹													
		1956	1957	1958	1959	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Carnations	1,000 plants	9,264 (²)	9,300 (²)	10,393 (²)	12,940 70	12,360 (²)	13,335 (²)	15,536 (²)	15,559 (²)	16,333 (²)	52,824 (²)	54,342 (²)	56,177 (²)	60,773 (²)	61,792 (²)
23 States															
California															
Florida															
Standard mums	1,000 plants	12,521 819	12,171 578	14,561 888	22,536 1,452	25,594 3,174	28,931 5,043	36,038 4,644	32,533 7,363	34,201 5,885	105,279 (²)	109,772 (²)	112,095 (²)	117,899 (²)	120,218 (²)
23 States															
California															
Florida															
Pompons	1,000 plants	10,224	8,813	9,427	12,495	10,921	11,339	13,482	12,719	13,952	113,686	115,078	125,436	140,821	128,532
23 States															
California															
Florida															
Potted mums	1,000 pot	14,504	22,144	21,735	24,783	36,602	39,644	46,040	48,750	51,982	56,741	62,666	70,160	76,041	83,454
23 States															
California															
Florida															
Gladioli	acres														
23 States															
California															
Florida															
Flowers	1,000 plants	2,051 (²)	2,590 (²)	2,749 (²)	2,852 73	3,093 73	3,067 292	3,312 406	3,500 243	3,770 199	15,137 100	15,075 101	16,784 110	17,085 119	18,006 99
23 States															
California															
Florida															
*Data estimates made for 1960 only year.															
†Data estimates for 23 States totals and for United States totals based on data for 1960 only year.															
‡Data estimates for 23 States totals and for United States totals based on data for 1960 only year.															

¹Fig. estimates made for 1960 crop year.
estimates for 23 State totals and for potted
mums based on 1960. Florida not tabulated for
1960.

²Fig. estimates of national production.

³Fig. estimates of national production.

⁴Fig. estimates of national production.

⁵Fig. estimates of national production.

Appendix table 4.— Volumes and proportions of specified flowers shipped out-of-State,
50 California and Florida shippers, 1969/70

Area and type of firm	Carn.	Chrysanthemums			Glads	Roses	Carn.	Chrysanthemums			Glads	Roses
		Std.	Pom.	Pot.				Std.	Pom.	Pot.		
	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 dozen	1,000 blooms	Percent	Percent	Percent	Percent	Percent	Percent
California												
Growers	14,020	649	306	50	284	5,469	29	7	29	86	48	38
Wholesalers ..	34,818	8,959	746	8	303	8,799	71	93	71	14	52	62
All California	48,838	9,608	1,052	58	587	14,268	100	100	100	100	100	100
Florida												
Growers and co-ops	---	3,485	3,713	519	7,089	440	---	99	98	100	87	34
Wholesalers ..	158	37	79	(1)	1,108	849	100	1	2	(1)	13	66
All Florida ..	158	3,522	3,792	519	8,197	1,289	100	100	100	100	100	100
Total												
Growers and co-ops	14,020	4,134	4,019	569	7,373	5,909	29	31	83	99	84	38
Wholesalers ..	34,976	8,996	825	8	1,411	9,648	71	69	17	1	16	62
All firms	48,996	13,130	4,844	577	8,784	15,557	100	100	100	100	100	100

¹ Less than 0.5 percent.

Appendix table 5.— Volumes and proportions of California and Florida production represented by sample, 1969/70

Area and Sales	Carn.	Chrysanthemums			Glads	Roses	Carn.	Chrysanthemums			Glads	Roses
		Std.	Pom.	Pot.				Std.	Pom.	Pot.		
	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 dozen	1,000 blooms	Percent	Percent	Percent	Percent	Percent	Percent
California												
Sample firms												
Total sales	51,503	10,572	1,224	280	926	18,473	14	15	13	12	26	12
Out-of-State shipments	48,838	9,608	1,052	58	587	14,268	13	14	11	2	16	9
State production ²	372,762	70,654	9,571	2,339	3,566	156,169	100	100	100	100	100	100
Florida												
Sample firms												
Total sales	733	4,363	4,156	795	8,709	³ 5,370	(¹)	43	31	47	50	³ 163
Out-of-State shipments	158	3,522	3,792	519	8,197	1,289	(¹)	35	28	31	47	38
State production ²	(¹)	10,042	13,447	1,097	17,366	3,364	(¹)	100	100	100	100	100
Total												
Sample firms												
Total sales	52,236	14,933	5,380	1,075	9,635	23,843	14	19	23	27	45	15
Out-of-State shipments	48,997	13,130	4,844	578	8,784	15,562	13	16	21	14	42	10
Two-State production ²	372,762	80,696	23,018	4,036	20,932	159,535	100	100	100	100	100	100

¹ Less than 0.5 percent. ² Flowers and Foliage Plants, Production and Sales in Selected States, U.S. Dept. Agr., SRS, Sp Cr6-1(70).

³ Represents roses obtained from other states for sales to In-State and off-shore customers.

Appendix table 6.—Total sales volumes and proportions of specified flowers by type of firms,
California and Florida flower shippers, 1969/70¹

Area and type of firm	Carn.	Chrysanthemums			Glads.	Roses	Carn.	Chrysanthemums			Glads.	Roses
		Std.	Pom.	Pot.				Std.	Pom.	Pot.		
	1,000 blooms	1,000 blooms	1,000 bunches	1,000 pots	1,000 dozen	1,000 blooms	Percent	Percent	Percent	Percent	Percent	Percent
California												
Growers	14,640	1,348	392	250	418	6,639	28	13	32	89	45	47
Wholesalers . .	36,863	9,224	832	30	508	9,834	72	87	68	11	55	53
All California	51,503	10,572	1,224	280	926	16,473	100	100	100	100	100	100
Florida												
Growers	---	4,109	3,922	793	7,566	880	---	94	96	100	87	16
Wholesalers . .	733	253	164	2	1,143	4,490	100	6	4	---	13	84
All Florida	733	4,362	4,156	795	8,709	5,370	100	100	100	100	100	100
Total												
Growers	14,640	5,475	4,314	1,043	7,984	7,519	28	37	81	97	83	34
Wholesalers . .	37,596	9,477	995	32	1,651	14,324	72	63	19	3	17	66
All firms	52,236	14,952	5,310	1,075	9,635	21,843	100	100	100	100	100	100

¹Includes in-State sales.

Appendix table 7.—Age of firms, 50 California and Florida flower shippers, 1969/70

Area and type of firm	Age in years				Not available	Total firm	Minimum	Mean	Maximum
	1-3	4-10	11-25	Over 25					
	Number of firms								
California									
Growers	---	2	5	4	---	11	5	33	86
Wholesalers	2	---	5	9	---	16	2	29	90
All California	2	2	10	13	---	27	2	31	90
Florida									
Growers	2	2	10	4	1	19	3	18	42
Wholesalers	---	---	1	2	1	4	23	28	32
All Florida	2	2	11	6	2	23	3	20	42
Total									
Growers	2	4	15	8	1	30	1	27	100
Wholesalers	2	---	6	11	1	20	2	28	90
All firms	4	4	21	19	2	50	1	27	100

Appendix table 8.—Years under present ownership, 50 selected California and Florida flower shippers, 1969/70

Area and type of firm	Years of present ownership				Total firms	Min.	Mean	Max.
	1-3	4-10	11-25	Over 25				
	Number of firms							
California								
Growers	2	---	6	3	11	2	25	70
Wholesalers	3	1	4	8	16	2	26	90
All California	5	1	10	11	27	2	26	90
Florida								
Growers	2	3	11	3	19	3	16	42
Wholesalers	---	2	---	2	4	5	18	32
All Florida	2	5	11	5	23	3	17	42
Total								
Growers	4	3	17	6	30	-	---	---
Wholesalers	3	3	4	10	20	-	---	---
All firms	7	6	21	16	50	-	---	---

Appendix table 9.—Form of business organization, 50 California and Florida flower shippers, 1969/70

Area and type of firm	Proprietorship	Partnership	Corporation	Cooperative	Total firms
	<i>Number of firms</i>				
California					
Growers	3	2	6	-	11
Wholesalers	3	2	11	-	16
All California	6	4	17	-	27
Florida					
Growers	7	2	9	1	19
Wholesalers	-	1	3	-	4
All Florida	7	3	12	1	23
Total					
Growers	10	4	15	1	30
Wholesalers	3	3	14	-	20
All Firms	13	7	29	1	50

Appendix table 10.—Number business locations per firm, 50 California and Florida flower shippers, 1969/70

Area and type of firm	Number of locations					Total firms	Number of locations		
	1	2	3	4 or 5	over 5		Min.	Mean	Max.
	<i>Number of firms</i>						<i>Number of locations</i>		
California									
Growers	10	1	-	-	-	11	1	1	2
Wholesalers	13	1	-	1	1	16	1	2	15
All California	23	2	-	1	1	27	1	2	15
Florida									
Growers	16	1	1	1	-	19	1	1	4
Wholesalers	3	-	1	-	-	4	1	1	3
All Florida	19	1	2	1	-	23	1	1	4
Total									
Growers	26	2	1	1	-	30			
Wholesalers	16	1	1	1	1	20			
All firms	42	3	2	2	1	50			

Appendix table 11.—Firms handling products other than fresh flowers, 50 California and Florida flower shippers, 1969/70

Area and type of firm	Fresh flowers only	Other products included	Total firms	Fresh flowers only	Other products included	Total firms
	<i>Number of firms</i>			<i>Percent</i>		
California						
Growers	11	-	11	100	-	100
Wholesalers	16	-	16	100	-	100
All California	27	-	27	100	-	100
Florida						
Growers & co-ops	12	7	19	63	37	100
Wholesalers	2	2	4	50	50	100
All Florida	14	9	23	61	39	100
Total						
Growers	23	7	30	77	23	100
Wholesalers	18	2	20	90	10	100
All firms	41	9	50	82	18	100

Appendix table 12.—Number of other flower types handled in important quantities, 50
California and Florida flower shippers, 1969/70

Area and type of firm	None	1-2	3-4	5+	Number unspec- ified	Total firms	None	1-2	3-4	5+	Number unspec- ified	Total firms
	<i>Number of firms</i>						<i>Percent</i>					
California												
Growers	7	2	2			11	64	18	18			100
Wholesalers	3	3	6	3	1	16	19	19	37	19	6	100
All California	10	5	8	3	1	27	37	18	30	11	4	100
Florida												
Growers & co-ops	10	7	1		1	19	53	37	5		5	100
Wholesalers		1			3	4		25			75	100
All Florida	10	8	1		4	23	43	35	4		18	100
Total												
Growers	17	9	3		1	30	57	30	10		3	100
Wholesalers	3	4	6	3	4	20	15	20	30	15	20	100
All firms	20	13	9	3	5	50	40	26	18	6	10	100

Appendix table 13.—Carnations: Prices received by California and Florida flower shippers, 1969/70

Area and type of firm	Cents per bloom			Not available	Total firms	Cents per bloom		
	5-7	8-10	11-14			Minimum	Average	Maximum
	<i>Number of firms</i>	<i>Number of firms</i>	<i>Number of firms</i>	<i>Number of firms</i>	<i>Number of firms</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
California								
Growers	3	2			5	5.0	6.4	8.3
Wholesalers	6	8	1		15	6.0	8.1	12.0
All California	9	10	1		20	5.0	7.6	12.0
Florida								
Growers and co-ops								
Wholesalers		1	2		3	10.0	11.3	12.0
All Florida		1	2		3	10.0	11.3	12.0
Total								
Growers	3	2			5			
Wholesalers	6	9	3		18			
All firms	9	11	3		23			